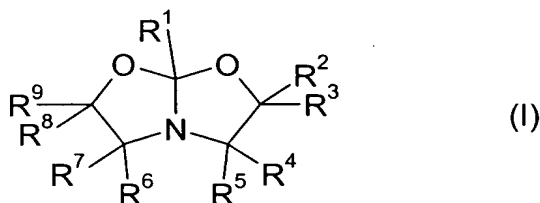


We claim:

1. A process for postcrosslinking a water-absorbing polymer, which process comprises said polymer being treated with a postcrosslinker and, during or after said treating, being postcrosslinked and dried by temperature elevation, said postcrosslinker being a compound of the formula I



- where R^1 , R^2 , R^3 , R^4 , R^5 , R^6 , R^7 , R^8 and R^9 are each independently hydrogen, C_1 - C_{12} -alkyl, C_2 - C_{12} -alkenyl or C_6 - C_{12} -aryl, wherein C_1 - C_{12} -alkyl, C_2 - C_{12} -alkenyl or C_6 - C_{12} -aryl may be halogen substituted.
2. A process as per claim 1, wherein said postcrosslinker is of the formula I where R^1 is C_1 - C_6 -alkyl, C_2 - C_6 -alkenyl or C_6 - C_7 -aryl, R^2 , R^4 , R^6 and R^8 are each independently hydrogen and R^3 , R^5 , R^7 and R^9 are each independently hydrogen, C_1 - C_4 -alkyl or C_2 - C_4 -alkenyl, wherein C_1 - C_4 -alkyl or C_2 - C_4 -alkenyl may be fluorine substituted.
3. A process as per claim 1, wherein said postcrosslinker is 1-aza-4,6-dioxabicyclo-[3.3.0]octane.
4. A process according to any of claims 1 to 3, wherein said polymer to be postcrosslinked is a polymer which contains structural units which are derived from acrylic acid or acrylic esters or which were obtained by graft copolymerization of acrylic acid or acrylic esters onto a water-soluble polymeric matrix.
5. A process according to any of claims 1 to 4, wherein said postcrosslinker is a surface postcrosslinker which is used as a solution in an inert solvent.
6. A process according to claim 5, wherein said inert solvent comprises aqueous solutions of glycerol, methanol, ethanol, isopropanol, ethylene glycol, 1,2-propanediol and/or 1,3-propanediol.

7. A process according to one or more of claims 1 to 6, wherein said inert solvent is water or a mixture of water with mono- or polyfunctional alcohols which has an alcohol content in the range from 10% to 90% by weight.
- 5 8. A process according to one or more of claims 1 to 7, wherein said postcrosslinker is used in an amount from 0.01% to 5% by weight, based on the weight of said polymer.
9. Water-absorbing polymer obtainable as per the process of claims 1 to 8.
- 10 10. Water-absorbing polymer according to claim 8, characterized by an absorbency under load (AUL) at 0.7 psi (4 830 Pa) of at least 15 g/g.
- 15 11. The use of the water-absorbing polymer as per claim 9 or 10 in hygiene articles and packaging materials.